WHAT IS CLAIMED IS:

1 A method of inhibiting replication of a virus, said method comprising: 2 contacting a nucleocapsid protein of the virus with a compound having the

3 formula:

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5 wherein

R¹⁴, R¹⁵ and R¹⁶ are members independently selected from H, NO₂, Sb(O)(OH)₂, OR¹⁷, SR¹⁷, CN, NR¹⁷R¹⁸, COR¹⁸, substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl

wherein

R¹⁷ and R¹⁸ are members independently selected from H, OR¹⁹,

 $C(O)R^{19}$, and $NR^{19}R^{20}$

wherein

R¹⁹ and R²⁰ are members independently selected from H, substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl,

with the proviso that at least one of R¹⁴, R¹⁵ and R¹⁶ is other than H.

- 2. The method according to claim 1, wherein at least one of R¹⁴, R¹⁵ and R¹⁶ comprises a member selected from carboxylic acid, carboxylic acid ester, and carboxylic acid amide.
- 1 3. A method of inhibiting replication of a virus, said method comprising: 2 contacting a nucleocapsid protein of the virus with a compound having the

3 formula:

$$R^{2}$$

$$R^{3}$$

$$R^{4}$$

$$R^{5}$$

$$R^{10}$$

$$R^{9}$$

$$R^{8}$$

5 wherein

from H, substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, CN, OR ¹¹ , COR ¹² , NR ¹¹ R ¹³ , and CONR ¹¹ R ¹³
heteroalkyl CN OR ¹¹ COR ¹² NR ¹¹ R ¹³ and CONR ¹¹ R ¹³
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wherein
R ¹¹ and R ¹³ are members independently selected from H, substituted o
unsubstituted alkyl, and substituted or unsubstituted
heteroalkyl;
R ¹² is a member selected from H, and OR ¹³ ; and
X is a member selected from O, S, and NR ^X
wherein
RX is a member selected from H, substituted or unsubstituted alkyl and
substituted or unsubstituted heteroalkyl,
with the proviso that at least three of R ¹ , R ² , R ³ , R ⁴ , R ⁵ , R ⁶ , R ⁷ , R ⁸ , R ⁹ , and R ¹
are COOR ¹³ .

4. The method of claim 3, wherein the compound has the formula:

wherein

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at least one of R⁶, R⁷, R⁸, R⁹, and R¹⁰ is COOR¹³ and each R¹³ is independently selected.

5. The method of claim 4, wherein the compounds has the formula:

6. The method of claim 5, wherein X is O.

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compound set out in claim 1 or claim 4.

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1 7. The method according to claim 1 or claim 4, wherein the virus is a 2 lentivirus. 8. The method of claim 7, wherein the lentivirus is an HIV-1, an HIV-2, 1 or an HTLV-1. 2 9. The method according to claim 1 or claim 4, wherein the contacting 2 step occurs in vivo. 10. The method according to claim 1 or claim 4, wherein the method 1 2 further comprises contacting the virus with an anti-viral agent different from the compounds set out in claim 1. 3 The method of claim 10, wherein said anti-viral agent is a antiĺ 11. 2 retroviral agent that is a nucleotide analogue or a protease inhibitor. 12. The method of claim 11, wherein said anti-retroviral agent is a 1 2 nucleotide analogue. The method of claim 12, wherein the nucleotides analogue is selected 13. 1 from the group consisting of an AZT, a ddCTP or a DDI analogue. 2 The method of claim 11, wherein the anti-retroviral agent is a protease 14. 1 2 inhibitor. The method of claim 1 or claim 4, wherein said compound is 1 15. administered to a human as a pharmaceutical formulation. 2 The method of claim 15, wherein said compound is administered 16. 1 2 intra-vaginally or intra-rectally to inhibit the transmission of the virus. 1 17. The method of claim 15, wherein said compound is administered to 2 an animal as a veterinary pharmaceutical formulation. 18. A pharmaceutical formulation comprising a unit dose of a 1



- 1 19. The pharmaceutical formulation of claim 18, further comprising a
- 2 pharmaceutical excipient.